

REMARKS

Claims 1-11 were rejected for rejected for double patenting. Applicant requests reconsideration. The present application is different than US Patent 7,139,302, as claim 1 refers to a staggered Manchester code not found in the claims of US Patent 7,139,302. Notwithstanding, a terminal disclaimer was previously filed. An authorization to charge account is provided herewith. The amendment to the specification, repeated herein, that includes the term uniphase was objected to for adding new matter. Applicant requests reconsideration. The claims 1-11 were rejected as anticipated by Raghavan. Applicant request reconsideration.

The difference between the present invention and Raghavan lies in the differences in modulation signaling. Both are directed to CDMA communications. Both generate split and null spectra of two communicated signals. Raghavan teaches the use of quadriphase signaling, as independent claim 1 includes the limitation of "modulated in quadrature". The drawings and specification of Raghavan teach quadriphase modulation by the use of I and Q quadrature signals. The present invention does not use I and Q quadriphase signaling, but rather superimposes the two uniphase signals. As such the present invention is not anticipated by Raghavan. Applicant request reconsideration.

The present invention is patentable over Raghavan as Raghavan teaches quadrature modulation. Raghavan is directed specifically to GPS communications where quadriphase signaling is employed using I and Q signals. Raghavan teaches

1 QPSK modulator. This quadriphase signaling in Raghavan is enabled
2 by the use of 90° phase shifter 97, shown in Figures 2C and
3 reflected in Figure 2B, during modulation. This quadriphase
4 modulation requires quadriphase demodulation as enabled by a
5 tracking loop using quadrature demodulators 72 and 115, as
6 requiring a 90° phase off set signal. By contradistinction, the
7 present invention proceeds contrary to the teachings of Raghavan.
8 The present invention uses uniphase signaling and is applicable to
9 BPSK modulation. The present invention cannot be used for GPS
10 modulation and demodulation.

11
12 One looking to increase channel capacity of a uniphase
13 signaling system would not look to a quadriphase signaling system.
14 The natural development of the field of spread spectrum
15 communication is from BPSK to QPSK. Those skilled in the art in
16 QPSK communication would not see advantages to BPSK communications.
17 This is apparent by the lack of mention of split and null spectra
18 communication in Raghavan as applied to BPSK signaling. Raghavan,
19 is also a coinventor of the present application. Coinventor
20 Raghavan never thought at the time of Raghavan to apply the split
21 and null spectra of quadriphase communications backward to BPSK
22 communications. Further, Raghavan was concerned with adding a new
23 code for improved navigation that relies upon GPS quadriphase
24 signaling, that is not applicable to uniphase signaling of BPSK, as
25 BPSK is not used in a navigation system relying upon GPS quadrature
26 signals. Those skilled in the art of navigation systems broadcast
27 GPS QPSK signals for purposes of improving the pseudo range
28 accuracy, and do not think in terms of general communications

and do not think in terms of general

1 channel capacity, whereas, those skilled in the art general
2 communications think in terms of channel capacity. As such, one
3 skilled in the art would not look to teachings of GPS QPSK
4 signaling for improvement of pseudo range accuracy to increase
5 generally channel capacity in uniphase BPSK communication systems.

6
7 No new matter was introduced through the addition of the
8 uniphase limitation by way of amendment. Raghavan specifically
9 teaches quadrature modulation. Independent claim 1 and the
10 specification have been amended to include the limitations that the
11 first spread spectrum signal and the second spread spectrum signal
12 respectively uniphase modulating a carrier, and that, the dual
13 spectrum signal is a uniphase dual spectrum signal. The
14 specification has been amended to include the limitation of
15 uniphase modulation. The drawing clearly shows that no quadrature
16 modulation is used. The specification teaches synchronized
17 modulation of a carrier. There is no reference to I and Q signals
18 or quadrature modulation in the drawings. This uniphase modulation
19 would be readily apparent to anyone skilled in the art. No new
20 matter has been added.

21
22 The use of uniphase modulation is clear and obvious to anyone
23 skilled in the art. Specifically, the mixers 22 and 38 produce
24 respective NRZ spread spectrum signals. Because these signals are
25 used to modulate a carrier, the outputs of mixers 22 and 38 are
26 known in the art as baseband signals that modulate a carrier. These
27 baseband signals are well known signals having a signal phase. The
28 specification clearly teaches that the modulators 24 and 40

modulate a single carrier. A carrier by definition has a signal
phase. As such, the modulated signals from modulators 24 and 40 are
uniphase signals. As such, the modulators 24 and 40 are uniphase
modulators receiving uniphase input baseband signals and providing
uniphase signals having a modulated carrier. There is no doubt to
anyone skilled in the art that the modulators 24 and 40 provide
uniphase signals. No new matter has been added. The term uniphase
is used to distinguish uniphase modulation from I and Q modulation
found in Raghavan.

Raghavan teaches quadriphase signaling using split and null
spectra for increased pseudo range accuracy. Whereas, the present
invention teaches uniphase signaling, using split and null spectra
for increased channel capacity. Raghavan does not teach or suggest
the present invention. Allowance of claims is requested.

Respectfully Submitted

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Respectfully



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